CLAIMS

What is claimed is:

1.    1.    A method of determining participants of a distributed operation in a distributed

system, the method comprising the steps of:

registering in a name service participant data that identifies a plurality of

4            participants that are participating in said distributed operation; and

5    causing a node that requires information about participants in said distributed

6            operation to retrieve said participant data from said name service.

1    2.    The method of Claim 1, wherein the step of causing a node to retrieve said

2    participant data includes causing said node to retrieve said participant data in

3    response to said node performing deadlock detection.

1    3.    The method of Claim 1, wherein:

said distributed operation is a distributed transaction; and

3    the step of registering includes registering in a name service participant data that

4            identifies which database servers of a plurality of database servers are

5            participating in said distributed transaction.

1    4.    The method of Claim 1, further including the step of causing updates to said

2    participant data to identify a new participant in said distributed operation.

1    5.    The method of Claim 4, wherein:

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2 said distributed operation is a distributed database transaction being executed by a

3  set of processes coordinated by a coordinator process;

4 the method further includes the step of said coordinator process causing a new

5  process on a database server to participate in said distributed database

6  transaction; and

7 the step of causing updates to said participant data includes said coordinator

8  process causing updates to said participant data in response to said new

9  process participating in said distributed database transaction.


1 6. The method of Claim 1, wherein

2 said distributed operation is a distributed database transaction;

3 the step of registering includes registering participant data that identifies which

4  database servers of a plurality of database servers are participating in said

5  distributed database transaction; and

6 the step of causing a node to retrieve said participant data includes causing a node

7  that requires information about participants in said distributed database

8  transaction to retrieve said participant data from said name service.


1 7. The method of Claim 1, wherein:

2 said distributed operation is a distributed database transaction;

3 the method further includes the step of assigning a transaction identifier to said

4  distributed database transaction;

5 the step of registering includes registering in said name service data that associates

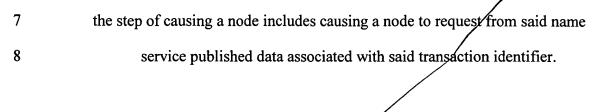6  said participant data with said transaction identifier; and


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7      the step of causing a node includes causing a node to request from said name

8          service published data associated with said transaction identifier.

1    8.    The method of Claim 1, wherein the step of causing a node to retrieve said

2        participant data includes said name service process receiving a request from a first

3        process to supply said participant data, wherein said name service process and

4        said first process reside on said node.

1    9.    The method of Claim 8, wherein the step of causing a node to retrieve said

2        participant data includes said name service process retrieving said participant data

3        from one or more data structures residing on said node in response to receiving

4        said request.

1    10.   The method of Claim 1, wherein the step of causing a node to retrieve said

2        participant data includes a name service process receiving a request from a first

3        process to supply said participant data, wherein said name service process and

4        said first process reside on said node.

1    11.   A computer-readable medium carrying one or more sequences of one or more

2        instructions for determining participants of a distributed operation in a distributed

3        system, the one or more sequences of one or more instructions including

4        instructions which, when executed by one or more processors, cause the one or

5        more processors to perform the steps of:

6        registering in a name service participant data that identifies a plurality of

7           participants that are participating in said distributed operation; and

8  causing a node that requires information about participants in said distributed

9  operation to retrieve said participant data from said name service.

12. The computer-readable medium of Claim 11, wherein the step of causing a node

2  to retrieve said participant data includes causing said node to retrieve said

3  participant data in response to said node performing deadlock detection.

1  13. The computer-readable medium of Claim 11, wherein:

said distributed operation is a distributed transaction; and

3  the step of registering includes registering in a name service participant data that

4  identifies which database servers of a plurality of database servers are

5  participating in said distributed transaction.

1  14. The computer-readable medium of Claim 11, further including the step of causing

2  updates to said participant data to identify a new participant in said distributed

3  operation.

1  15. The computer-readable medium of Claim 14, wherein:

2  said distributed operation is a distributed database transaction being executed by a

3  set of processes coordinated by a coordinator process;

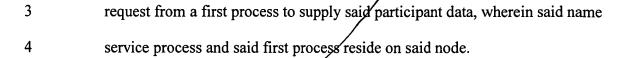4  the computer-readable medium further includes sequences of instructions for

5  performing the step of said coordinator process causing a new process on a

6  database server to participate in said distributed database transaction; and

7    the step of causing updates to said participant data includes said coordinator

8        process causing updates to said participant data in response to said new

9        process participating in said distributed database transaction.

16.    The computer-readable medium of Claim 11, wherein

2    said distributed operation is a distributed database transaction;

3    the step of registering includes registering participant data that identifies which

4        database servers of a plurality of database servers are participating in said

5        distributed database transaction; and

6    the step of causing a node to retrieve said participant data includes causing a node

7        that requires information about participants in said distributed database

8        transaction to retrieve said participant data from said name service.

17.    The computer-readable medium of Claim 11, wherein:

2    said distributed operation is a distributed database transaction;

3    the computer-readable medium further includes sequences of instructions for

4        performing the step of assigning a transaction identifier to said distributed

5        database transaction;

6    the step of registering includes registering in said name service data that associates

7        said participant data with said transaction identifier; and

8    the step of causing a node includes causing a node to request from said name

9        service published data associated with said transaction identifier.

18.    The computer-readable medium of Claim 11, wherein the step of causing a node

2    to retrieve said participant data includes said name service process receiving a

3    request from a first process to supply said participant data, wherein said name

4    service process and said first process reside on said node.

1  19.    The computer-readable medium of Claim 18, wherein the step of causing a node

2    to retrieve said participant data includes said name service process retrieving said

3    participant data from one or more data structures residing on said node in response

4    to receiving said request.

1  20.    The computer-readable medium of Claim 1, wherein the step of causing a node to

2    retrieve said participant data includes a name service process receiving a request

3    from a first process to supply said participant data, wherein said name service

4    process and said first process reside on said node.